JOURNAL OF ELECTROANALYTICAL CHEMISTRY

Vol. 353 Nos. 1 and 2 15 JULY 1993

CONTENTS

Metal–solvent interactions at the electrode–solution interface. An experimental approach
Z. Borkowska and G. Jarząbek (Warsaw, Poland) 1

Cyclic voltammetry and charge accumulation at conducting organic salt enzyme electrodes
C.P. Wilde, A. Hu, C.M. Rondeau and M. Wood (Ottawa, Ont., Canada) 19

Possible excess tritium production on Pd codeposited with deuterium
D. Hodko and J.O'M. Bockris (College Station, TX, USA) 33

The preparation of electrodes modified with isopolymolybdic acid + polyaniline film and its catalytic effects on chlorate ions
B. Wang, F. Song and S. Dong (Jilin, People's Republic of China) 43

Anodic voltammetry of phenol and benzenethiol derivatives. Part 1. Influence of pH on electro-oxidation potentials of substituted phenols and evaluation of pK_a from anodic voltammetry data
J. Stradins (Riga, Latvia) and B. Hasanli (Baku, Azerbaijan) 57

Potential-dependent surface segregation in lead + ruthenium pyrochlore $Pb_2Ru_2O_{7-y}$
G. Gökağaç and B.J. Kennedy (Sydney, Australia) 71

DEMS and in-situ FTIR investigations of C_3 primary alcohols on platinum electrodes in acid solutions. Part II. Allyl alcohol
E. Pastor, S. Wasmus, T. Iwasita (Bonn, Germany), M.C. Arévalo, S. González and A.J. Arvia (Tenerife, Spain) 81

Comparative evaluation of electrodeposition of polypyrrole on lead-dioxide-coated glassy carbon and of lead dioxide on polypyrrole-coated glassy carbon electrodes
D. Velayutham and M. Noel (Karaikudi, India) 101

Improved alcohol biosensor based on ruthenium-dispersed carbon paste enzyme electrodes
J. Wang, E.G. Romero and A.J. Reviejo (Las Cruces, NM, USA) 113

Effect of solvent structure on the transport and thermodynamic properties of electrolyte solutions. Conductance of potassium nitrate and sodium bromide in water + sulpholane mixtures at 25°C
A. D'Aprano, A. Capalbi and M. Battistini (Rome, Italy) 121

Underpotential deposition of copper on Pd(100): an electron spectroscopy study
P. Lenz and T. Solomun (Berlin, Germany) 131

Characterization of passive layers formed on lead by electrochemical impedance spectroscopy
F.E. Varela, L.M. Gassa and J.R. Vilche (La Plata, Argentina) 147

Influence of the forming electrolyte on the electrical properties of anodic hafnium oxide films: an ac impedance investigation
M.J. Esplandiu, E.M. Patrito and V.A. Macagno (Córdoba, Argentina) 161

Kinetics of the oxygen electrode reaction in molten Li + Na carbonate eutectic. Part 5. Linear voltammetric and chronoamperometric data for the reduction processes at NiO monocrystalline electrodes
P. Tomczyk, G. Mordarski and J. Obłąkowski (Cracow, Poland) 177

Kinetics of the oxygen electrode reaction in molten Li + Na carbonate eutectic. Part 6. Quantitative analysis of the linear scan voltammetric curves for the first reduction process at monocrystalline NiO electrodes
L.K. Bieniasz and P. Tomczyk (Cracow, Poland) 195

Electro-organic reactions on organic electrodes. Part 18. Electrolysis using composite-plated electrodes. Part VII. Preparation of ultrahydrophobic electrodes and their electrochemical properties
Y. Kunugi, T. Nonaku (Yokohama, Japan), Y.-B. Chong and N. Watanabe (Kyoto, Japan) .. 209

Investigation of the reduction of 1,2-cyclohexanedione and methylglyoxal on mercury electrodes under pure kinetic conditions by linear-sweep voltammetry
M. Ruiz Montoya, M.A. Zón and J.M. Rodríguez Mellado (Córdoba, Spain) 217

Electrochemical behaviour of syringaldazine, a colorimetric redox reagent
P. Hapiot, J. Pinson (Paris, France), P. Neta (Gaithersburg, MD, USA) and C. Rolando (Paris, France) 225

The effect of monomer and acid concentrations on electrochemical polyaniline formation in acetonitrile
N. Pekmez, K. Pekmez, M. Arca and A. Yıldız (Ankara, Turkey) 237

Adsorption of inorganic ions on bismuth from constant ionic strength solutions in 2-butanol
M. Väärtnõu (Tartu, Estonia) 247

On the quantitative determination of carbon dioxide in air. A new sensor technique using anodic adsorbate stripping
A. Küver, W. Vielstich and D. Kitzelmann (Bonn, Germany) 255

Coordination of Fe^{3+} by "alizarin complexone" adsorbed on graphite electrodes to produce electrocatalysts for the reduction of O_2 and H_2O_2
J. Zhang and F.C. Anson (Pasadena, CA, USA) 265

On the anodic oxidation of the Pd(111)c(4 × 2)–CO adlattice in alkaline solution
G.M. Berry, J.R. McBride, J.A. Schimpf and M.P. Soriaga (College Station, TX, USA) 281

A new glucose sensor made of a Nafion-gel-layer covered carbon paste
C.P. Andrieux, P. Audebert (Paris, France), B. Divisia-Blohorn and S. Linquette-Maillet (Grenoble, France) 289

On-line mass spectroscopic observation of the reduction and oxidation of NO_2^- on graphite-supported copper oxide electrodes in aqueous media
S. Sunohara, K. Nishimura, R. Ohnishi, M. Enyo, M. Ueno, K. Yahikozawa and Y. Takasu (Ueda, Japan) 297

Decreases in the inhibition of the electrocatalyzed oxidation of formic acid by carbon monoxide
M. Schell (Dallas, TX, USA), F.N. Albahadily (Edmond, OK, USA) and J. Safar (Dallas, TX, USA) 303

Electrosynthesis of polyamino-benzoquinone (PAQ) polymers
K.L.N. Phani, S. Pitchumani, S. Muralidharan, S. Ravichandran and S.V.K. Iyer (Karaikudi, India) 315

In situ infrared reflection absorption spectra of heptyl viologen adsorbed on a mercury electrode surface
F. Kitamura, T. Ohsaka and K. Tokuda (Yokohama, Japan) 323

Electrochemical in situ conductivity measurements of C_{60} thin films
M. Nishizawa, T. Matsue and I. Uchida (Sendai, Japan) 329

Electroreduction of molecular oxygen in one 4-electron step on mercury
M. Heyrovský and S. Vavřička (Prague, Czech Republic) 335

Anodic oxidation of benzhydrylidenefluorene: synthesis of a new poly(9,9-disubstituted fluorene) possessing reversible p and n dopings
J. Rault-Berthelot and M.M. Granger (Rennes, France) 341

Influence of solvent dynamics on the heterogeneous kinetics of a reaction with a large inner-shell barrier: chloro(tetraphenylporphinato)manganese(III) reduction
X.H. Mu and F.A. Schultz (Indianapolis, IN, USA) 349

Book reviews 357

Announcements 361

Author index 365

Subject index 367